

School of Science
Department of Chemistry
NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 4.5 (Semester – I)

(Honours / Honours with Research)
For Batch: AY 25-26 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR(MANDATORY + ELECTIVES)												
1	Major	NYCH101	Basics of Organic and Inorganic Chemistry	3	-	-	3	50	-	100	-	100
2	Major	NYCH102	Basics of Physical and Analytical Chemistry	3	-	-	3	50	-	100	-	100
MINOR: NA												
NA												
Open Electives(OE)*												
3	Mandatory		Open Elective – I	4	-	-	4	50	-	100	-	100
Vocational and Skill Enhancement (VSEC)												
4	VSC	NYCH111	Chemical Laboratory Safety	-	-	4	2	-	50	-	50	100
5	SEC	NYCH112	Introductory Chemistry Laboratory	-	-	4	2	-	50	-	50	100
Ability/Value Education Courses/ Indian Knowledge System(AEC/VEC/IKS)*												
6	AEC		AEC I	-	-	4	2	-	50	-	50	100
7	VEC		VEC I	-	-	4	2	-	50	-	50	100
8	IKS		IKS	-	-	4	2	-	50	-	50	100
OJT/FP/CEP/CC/RP												
9	CC		CC I	-	-	4	2	-	50	-	50	100
TOTAL				10	-	24	22	150	300	300	300	900

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses SEC- Skill Enhancement Courses AEC- Ability Enhancement Courses VEC – Value Education Courses IKS- Indian Knowledge System OJT – On Job Training FP – Field Project CEP – Community Engagement Project CC – Co-curricular Courses RP – Research Project * Refer University Notification	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Mid-Term Exam (MTE)
		CIA 3	10%	Activity/Project and research based learning along with seminar presentation
		CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
		CIA TOTAL	50%	
Written Examination – End Semester Exam (ESE)			50%	
		TOTAL	100%	

School of Science
Department of Chemistry
NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 4.5 (Semester – II)

(Honours / Honours with Research)
For the Batch: AY 2025-26 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR(MANDATORY + ELECTIVES)												
1	Major	NYCH201	Organic and Inorganic Chemistry	3	-	-	3	50	-	100	-	100
2	Major	NYCH202	Physical and Analytical Chemistry	3	-	-	3	50	-	100	-	100
MINOR												
3	Minor		Minor I	2	-	-	2	50	-	100	-	100
Open Electives(OE)*												
4	Mandatory		Open Elective - II	4	-	-	4	50	-	100	-	100
Vocational and Skill Enhancement (VSEC)												
5	SEC	NYCH211	Skills in Qualitative Organic and Inorganic Analysis	-	-	4	2	-	50	-	50	100
6	VSC	NYCH212	Physical and Analytical Chemistry Laboratory I	-	-	4	2	-	50	-	50	100
Ability/Value Education Courses/ Indian Knowledge System(AEC/VEC/IKS)*												
7	AEC		AEC - II	-	-	4	2	-	50	-	50	100
8	VEC		VEC- II	2	-		2	50	-	100	-	100
OJT/FP/CEP/CC/RP												
9	CC		CC II	-	-	4	2	-	50	-	50	100
TOTAL				12	-	20	22	250	200	500	200	900

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
	FP – Field Project			
CEP – Community Engagement Project	Written Examination – End Semester Exam (ESE)			50%
CC – Co-curricular Courses		TOTAL	100%	
RP – Research Project				
* Refer University Notification				

Exit option: Award of UG certificate in Major with 44 credits and an additional 4 credits core NSQF course/ Internship or Continue with Major and Minor.

School of Science
Department of Chemistry
NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 5.0 (Semester – III)

(Honours / Honours with Research)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR (MANDATORY + ELECTIVES)												
1	Major	NYCH301	Organic Chemistry	4	-	-	4	50	--	100	--	100
2	Major	NYCH302	Inorganic Chemistry	4	-	-	4	50	--	100	--	100
MINOR												
3	Minor		Minor II	4	--		4	50	--	100	--	100
Open Electives (OE)*												
4	Mandatory		Open Elective - III	2	--		2	50	--	100	--	100
Vocational Skill Course (VSC)												
5	VSC	NYCH311	Organic and Inorganic Chemistry Laboratory	--	--	4	2	--	50	--	50	100
Ability/Value Education Courses/ Indian Knowledge System(AEC/VEC/IKS)*												
6	AEC		AEC - III		--	4	2	-	50		50	100
OJT/FP/CEP/CC/RP												
7	FP	NYCH312	Field Project	--	--	4	2	--	50	--	50	100
8	CC		CC III	--	--	4	2	--	50	--	50	100
TOTAL				16	-	12	22	200	200	400	200	800

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
	FP – Field Project			
CEP – Community Engagement Project	Written Examination – End Semester Exam (ESE)			50%
CC – Co-curricular Courses		TOTAL	100%	
RP – Research Project				
* Refer University Notification				

School of Science
Department of Chemistry
NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 5.0 (Semester – IV)

(Honours / Honours with Research)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment		Summative Assessment		
								CIA		ESE		
								Course	Lab	Course	Lab	
MAJOR (MANDATORY + ELECTIVES)												
1	Major	NYCH401	Physical Chemistry	4	-	-	4	50	--	100	--	100
2	Major	NYCH402	Analytical Chemistry	4	-	-	4	50	--	100	--	100
MINOR												
3	Minor		Minor III	4	--		4	50	--	100	--	100
Open Electives (OE)*												
4	Mandatory		Open Elective - IV	2	--		2	50	--	100	--	100
Skill Enhancement Course (SEC)												
5	SEC	NYCH411	Physical & Analytical Laboratory II	--	--	4	2	--	50	--	50	100
Ability/Value Education Courses/ Indian Knowledge System (AEC/VEC/IKS)*												
6	AEC		AEC - IV	-	--	4	2	-	50		50	100
OJT/FP/CEP/CC/RP												
7	CEP	NYCH412	Community Engagement Project	--	--	4	2	--	50	--	50	100
8	CC		CC IV	--	--	4	2	--	50	--	50	100
TOTAL				16	-	12	22	200	200	400	200	800

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
	FP – Field Project			
CEP – Community Engagement Project	Written Examination – End Semester Exam (ESE)			50%
CC – Co-curricular Courses	TOTAL			100%
RP – Research Project				
* Refer University Notification				

Exit option: Award of UG Diploma in Major and Minor with 88 credits and additional 4 credits core NSQF Course / Internship or Continue with Major and Minor

School of Science
Department of Chemistry
NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 5.5 (Semester – V)

(Honours / Honours with Research)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
Major (Mandatory + Electives)												
1	Major	NYCH501	Advanced Physical Chemistry	4	-	-	4	50	--	100	--	100
2	Major	NYCH502	Advanced Analytical Chemistry	4	-	-	4	50	--	100	--	100
3	Major	NYCH511	Advanced Physical and Analytical Chemistry Laboratory	-	-	4	2	--	50	--	50	100
Major Elective– I												
4	Major	NYCHE--	Major Elective - I	4	-	-	4	50	-	100	-	100
Minor												
5	Minor		Minor IV	4	--		4	50	--	100	--	100
Vocational Skill Courses (VSC)												
6	VSC	NYCH512	Instrumental Methods of Chemical Analysis	-	-	4	2	--	50	--	50	100
Ability Enhancement Course(AEC)												
7	AEC	NYCH513	AEC-V	-	-	4	2		50		50	100
FP/CEP												
8	FP / CEP	NYCH514	Filed Project /Community Engagement Project	--	--	4	2	--	50	--	50	100
TOTAL				16	-	12	24	200	200	400	200	800

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General DisciplineTheory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
FP – Field Project	Written Examination – End Semester Exam (ESE)		50%	
CEP – Community Engagement Project		TOTAL	100%	
CC – Co-curricular Courses				
RP – Research Project				
* Refer University Notification				

Course Code	Major Elective I
NYCHE01	Chemistry in daily life
NYCHE02	Electrochemical Cells, Chemical Kinetics and Catalysis
NYCHE03	Basic Industrial Chemistry

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Program Name: Bachelor of Science (Chemistry)
Level 5.5 (Semester – VI)

(Honours / Honours with Research)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR (MANDATORY + ELECTIVES)												
1	Major	NYCH601	Advanced Organic Chemistry	4	-	-	4	50	--	100	--	100
2	Major	NYCH602	Advanced Inorganic Chemistry	4	-	-	4	50	--	100	--	100
3	Major	NYCH611	Advanced Organic& Inorganic Chemistry Laboratory	-	-	4	2	--	50	--	50	100
Major Elective - II												
4	Major	NYCHE--	Major Elective - II	4	-	-	4	50	-	100	-	100
Minor												
5	Minor		Minor VI	4	--		4	50	--	100	--	100
Ability Enhancement Course(AEC)												
6	AEC	NYCH612	AEC-IV			4	2					
OJT												
7	OJT	NYCH613	On Job Training	--	--	8	4	--	50	--	50	100
TOTAL				16	-	12	24	200	100	400	50	600

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
FP – Field Project CEP – Community Engagement Project CC – Co-curricular Courses RP – Research Project * Refer University Notification		Written Examination – End Semester Exam (ESE)		50%
		TOTAL	100%	

Course Code	Major Elective II
NYCHE04	Basics of polymer science
NYCHE05	.Basics of Organometallic Chemistry
NYCHE06	Nuclear and Environmental Chemistry

Exit option: Award of UG Degree in Major with 132 credits or Continue with Major and Minor

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Program Name: Bachelor of Science (Chemistry)
Level 6.0 (Semester – VII)

(UG Honours)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR (MANDATORY + ELECTIVES)												
1	Major	NYCH701	Designing of Organic Synthesis	4	-	-	4	50	--	100	--	100
2	Major	NYCH702	Analytical Spectroscopy	4	-	-	4	50	--	100	--	100
3	Major	NYCH703	Organic Reaction Mechanisms	4			4	50		--	50	100
4	Major	NYCH711	Chemistry Laboratory I	-	-	4	2		50			100-
Major Elective – III												
5	Major	NYCHE--	Major Elective - III	4	-	-	4	50	-	100	-	100
Minor												
6	Minor	17RDP101	Research Methodology	4	--		4	50	--	100	--	100
TOTAL				20	-	4	22	250	50	400	50	600

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training			
	FP – Field Project			
CEP – Community Engagement Project				
CC – Co-curricular Courses				
RP – Research Project				
* Refer University Notification				
Written Examination – End Semester Exam (ESE)			50%	
		TOTAL	100%	

Course Code	Major Elective III
NYCHE07	Quantum Chemistry and Covalent bonding
NYCHE08	Analytical Toxicology and Food Analysis
NYCHE09	Pericyclic reactions, Photochemistry and Heterocyclic Chemistry

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NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 6.0 (Semester – VIII)

(UG Honours)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR (MANDATORY + ELECTIVES)												
1	Major	NYCH801	Spectroscopic Methods for Structure Determination	4	-	-	4	50	--	100	--	100
2	Major	NYCH802	Quality Assurance and Quality Control, Method of Analytical Development and Validation	4	-	-	4	50	--	100	--	100
3	Major	NYCH803	Industrial Analytical Chemistry	4	-		4	50	--	100		100
4	Major	NYCH811	Chemistry Laboratory II	-	-	4	2	--	50	--	50	100
Major Elective - II												
4	Major	NYCHE--	Major Elective - IV	4	-	-	4	50	-	100	-	100
OJT												
6	OJT	NYCH812	On Job Training	--	--	8	4	--	50	--	50	100
TOTAL				16	-	12	22	200	100	400	100	600

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
	FP – Field Project			
CEP – Community Engagement Project	Written Examination – End Semester Exam (ESE)			50%
CC – Co-curricular Courses	TOTAL			100%
RP – Research Project				
* Refer University Notification				

Course Code	Major Elective IV
NYCHE10	Synthetic methods in Organic Chemistry
NYCHE11	Heterocyclic Chemistry
NYCHE12	Pharmaceutical Analysis

Exit option: Award of UG Honours Degree in Major and Minor with 176 credits.

School of Science
Department of Chemistry
NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 6.0 (Semester – VII)

(UG Honours with Research)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	Major	NYCH701	Designing of Organic Synthesis	4	-	-	4	50	--	100	--	100
2	Major	NYCH702	Analytical Spectroscopy	4	-	-	4	50	--	100	--	100
3	Major	NYCH712	Chemistry Laboratory III	--	--	4	2	--	50	--	50	100
4	Major	NYCHE--	Major Elective - III	4	-	-	4	50	-	100	-	100
5	Minor	17RDP101	Research Methodology	4	--	--	4	50	--	100	--	100
6	RP	NYCH713	Research Project stage -I	--	--	8	4	--	50	--	50	100
TOTAL				16	-	12	22	200	100	400	100	600

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
FP – Field Project				
CEP – Community Engagement Project				
CC – Co-curricular Courses				
RP – Research Project				
* Refer University Notification				
Written Examination – End Semester Exam (ESE)			50%	
		TOTAL	100%	

Course Code	Major Elective III
NYCHE07	Quantum Chemistry and Covalent bonding
NYCHE08	Analytical Toxicology and Food Analysis
NYCHE09	Pericyclic reactions, Photochemistry and Heterocyclic Chemistry

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NEP 2020 - Course Structure

Program Name: Bachelor of Science (Chemistry)
Level 6.0 (Semester – VIII)

(UG Honours with Research)
For the Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
MAJOR (MANDATORY + ELECTIVES)												
1	Major	NYCH801	Spectroscopic Methods for Structure Determination	4	-	-	4	50	--	100	--	100
2	Major	NYCH802	Quality Assurance and Quality Control, Method of Analytical Development and Validation	4	-	-	4	50	--	100	--	100
3	Major	NYCH813	Chemistry Laboratory IV	-	-	4	2	-	50	-	50	100
Major Elective – IV												
4	Major	NYCHE--	Major Elective - IV	4	-	-	4	50	-	100	-	100
Research Project												
5	RP	NYCH814	Research Project Stage -II	-	-	16	8	-	50	--	50	100
TOTAL				12	-	20	22	150	100	300	100	500

CIA: Continuous Internal Assessment ESE: End Semester Theory Exam. L: Theory Lecture, T: Tutorial, P: Practical	VSC- Vocational Skill Courses	CIA	Weightage	Description
	SEC- Skill Enhancement Courses	CIA 1	10%	Home Assignment
	AEC- Ability Enhancement Courses	CIA 2	20%	Mid-Term Exam (MTE)
	VEC – Value Education Courses	CIA 3	10%	Activity/Project and research based learning along with seminar presentation
	IKS- Indian Knowledge System	CIA 4	10%	Behavioural Attitude +General Discipline Theory +Practical attendance
	OJT – On Job Training	CIA TOTAL	50%	
FP – Field Project	CEP – Community Engagement Project			
CC – Co-curricular Courses	RP – Research Project			
* Refer University Notification				
Written Examination – End Semester Exam (ESE)			50%	
		TOTAL	100%	

Course Code	Major Elective IV
NYCHE10	Synthetic methods in Organic Chemistry
NYCHE11	Heterocyclic Chemistry
NYCHE12	Pharmaceutical Analysis

Exit option: Award of UG Honours with Research Degree in Major and Minor with 176 credits.

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ABILITY ENHANCEMENT COURSE (AEC) BASKET

S. No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NHSA01	Communicative English	I
2	NHSA06	Organizational Behavior	
3	NHSA07	Journalistic writing	
4	NHSA05	Elementary Marathi	
5	NHSA09	Linguaskills 1	
6	NHSA02	Personality Development and Soft Skills	II
7	NHSA08	Creative Writing	
8	NHSA03	Value Education	
9	NHSA04	Introduction to Sanskrit	
10	NHSA10	Linguaskills 2	
11	NSSA01	IP and Scientific writing	III
12	NSSA02	Data analysis and interpretation	
13	NSSA03	Publication Ethics	
14	NHSA11	Key Competencies for Career Growth	
15	NSSA04	Scientific policies and practices	IV
16	NSSA05	Literature and Publication	
17	NSSA06	Scientific media	
18	NHSA12	Strategic Communication for Professionals (Advanced)	
19	NHSA13	Essential Aptitude Skills	V
20	NHSA14	Employability Skills and Career Advancement	VI

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VALUE EDUCATION COURSE (VEC) BASKET

S.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NSSV02	Sustainable Development	I
2	NLWV01	The Constitution and Human Rights	
3	NSSV03	Scientific Ethics	
4	NSSV04	Science and Society	II
5	NSSV05	Waste to Wealth	
6	NSSV01	Environmental Studies	

INDIAN KNOWLEDGE SYSTEM (IKS) BASKET

Sr.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NSSI01	Ethnomedicine	I
2	NSSI02	Vedic Mathematics	
3	NSSI03	Nature as Medicine	
4	NSSI04	Ancient World and Modern Science	
5	NSSI05	Science and Spirituality	

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CO-CURRICULAR COURSE (CC) BASKET

Sr.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NSSC01	Physical Education and Mental Health	I
2	NYCM112	Yoga Meditation	
3	NSSC02	Ethics and Human Rights	II
4	NSSC03	Science Clubs	
5	NSSC04	Food Adulteration	
6	NSSC05	Bio-media	
7	NSSC06	Wild Life Photography	III
8	NSSC07	Awareness and Recycling of Plastic	
9	NSSC08	Health and Hygiene	
10	NSSC13	Mathematics for Environmental Studies	
11	NSSC09	Courtroom Strategies and Tactics	IV
12	NSSC10	Scientific Journalism	
13	NSSC11	Organic and Residue Free Farming	
14	NSSC12	Soil and water analysis	

OPEN ELECTIVE (OE) BASKET

Sr.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NSSO01	Fundamentals of Statistics	I
2	NSSO02	Introduction to Nano science and Nanotechnology	
3	NSSO03	Diseases and Control Measures	II
4	NSSO04	Horticulture	



School of Science

Department of Chemistry
NEP 2020 - Course Structure

MINORS

Note: Student from B.Sc. (Forensic Science) with minor in Chemistry shall choose from following:

Sr.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NYCHM01	Fundamentals of Chemistry	II
2	NYCHM11	Basics of Organic Chemistry	III
3	NYCHM12	Basics of Analytical Chemistry	IV
4	NYCHM13	Basics of Inorganic Chemistry	V
5	NYCHM14	Advanced Analytical Chemistry	VI

Note: Student from B.Sc. (Chemistry) with minor in Forensic Science shall choose from following:

S.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NYFSM01	Introduction to Forensic	II
2	NYFSM06	Evidence Analysis in Forensics	III
3	NYFSM07	Narcotics Drugs and Psychotropic Substances	IV
4	NYFSM08	Forensic Toxicology	V
6	NYFSM09	Crime Scene investigation	VI

Note: Student from B.Sc. (Chemistry) shall choose from following:

Sr.No.	COURSE CODE	NAME OF THE COURSE	SEMESTER
1	NYCHM06	Introduction to Pesticide and Agrochemicals	II
2	NYCHM07	Pesticide Synthesis	III
3	NYCHM08	Pesticide Formulation	IV
4	NYCHM09	Biochemistry and Toxicology of Pesticides	V
5	NYCHM010	Herbicides and Plant Growth Regulators	VI